



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
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February 9, 1988

Certified Return Receipt Requested  
P 001 717 582

Mr. George Beamer  
Product Development Engineer  
Interpace-Mica Plant  
Highway 27  
Mica, Washington 99023

Dear Mr. Beamer:

Re: Conditional Tentative Approval, M/049/006, Clinton Pit - Mine  
and Reclamation Plan, Utah County, Utah

We have combined your December, 1987 plan submittal with information and maps previously submitted by Interpace Corporation. The complete plan is enclosed for your review.

The Division approves the following variances:

- a. The dam variance for the fill structure which is located on the east end of the property.
- b. The highwall variance for the solid rock wall located on the north side of the west pit.
- c. The impoundment variance for the west pit provided that the pond is constructed with gentle slopes that allow for easy access (both in and out) by wildlife.

A highwall variance for the Lehi Cut and the narrow cut north of the West Pit is denied at this time because it is unknown if there will be sufficient material available to backfill these cuts completely. The Division prefers to see these areas completely backfilled or partially backfilled and sloped to a more gentle angle. A variance may be necessary in the future if this proves to be impractical.

*Variances approved*



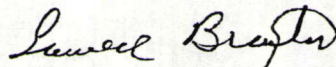
We will require the following from you before we can grant final plan approval:

1. Return of the plan with a notarized signature.
2. A written agreement to the conditions outlined in Attachment I of this letter.
3. A reclamation bond for the amount shown in Attachment II.

Please note that the bond estimate shows only 15,000 yards of waste to be placed into the Lehi Cut rather than 35,000 yards. This is in recognition of the backfill work that has already been done on the Lehi Cut and the expectation that this work will continue as additional waste is generated. The reclamation bond can be further reduced in the future as reclamation is completed on portions of the site.

Items one and two above should be submitted to this office by March 1, 1988. The reclamation bond should be submitted no later than April 1, 1988. Please contact me or Frank Filas of my staff if you have any questions.

Sincerely,



Lowell Braxton, Administrator  
Mineral Resource Development  
and Reclamation Program

ff

cc: F. Filas  
H. Sheppard  
D. Wham

1068R-83 & 84



## Attachment I

### Conditions for Tentative Approval Interpace Industries, Inc. Clinton Pit, M/049/006

1. We will require confirmation that the mine currently covers 16 acres plus 1 acre of associated roads and that future mine development under the plan will cover approximately 9 additional acres.

Explanation: The mine and reclamation plan states that 25 acres of land will be disturbed by mining plus one acre by associated roads. Excluding roads, Map D shows approximately 29 acres of prelaw mining, 16 acres of postlaw mining, and 16 acres of projected mining. It is assumed that only 9 acres of the 16 acres of projected mining are actually going to be mined under this plan.

2. We will require that Interpace commit to stockpiling all available topsoil and subsoil during future mine development. The soil material should be placed in separate stockpiles and seeded with a mixture of fast growing grasses.

Explanation: Our information indicates that very little of the 3 to 12 inch soil cover has been stockpiled in the past. The 5000 cubic yards to be stockpiled is approximately half of what will be required to achieve the 2 to 3 inch soil cover rate over 25 acres of reclaimed land.

Past experience in this area indicates that adequate revegetation can be achieved with minimal topsoil if the topsoil is underlain with a good subsoil. Since current stockpiled soil is limited, all efforts must be made to conserve soil material during future pit development.

3. We will require that Interpace commit to placing all the waste produced during future mining into mined out cuts.

Explanation: Page 2 of Attachment A states that waste rock will be placed in either the existing fill located in the dry wash or into a mined out excavation. We believe that the existing fill is stable and that no benefit can be derived by placing additional material onto the fill. Placement of all future waste material into the mined out cuts and pits will provide for the greatest degree of reclamation.



Attachment I cont.

4. We will require that Interpace commit to the building of the safety berms which are described on page 3 of Attachment A and to the removal or burial of all mine related trash.

Explanation: The mine and reclamation plan has "NA" listed on page 7, part 22(B & C) with reference to trash disposal and safety berms. The Division believes that these are important aspects of operating a mine and that they should not be neglected.

1068R-85 & 86



Attachment II

Reclamation Cost Estimate  
Clinton Pit, M/049/006  
by  
Frank Filas  
(February 9, 1988)

Backfill Cuts

A. Haul and place clay stockpiles and pads into the mined out cuts.

8,000 yards at \$1.80 per yard = \$14,400

B. Backfill waste material and subsoil into the Lehi Cut.

15,000 yards at \$1.80 per yard = \$27,000

C. Backfill waste material and subsoil into the North Cut.

D-8 Dozer:	10 hours at \$120 per hour	= \$1200
3 yd Loader:	16 hours at \$80 per hour	= 1300
7 yd Trucks:	32 hours at \$50 per hour	= 1600

Subtotal = \$4100

D. Haul miscellaneous piles to the pits and backfill.

3 yd Loader:	16 hours at \$80 per hour	= \$1300
7 yd Trucks:	32 hours at \$50 per hour	= 1600

Subtotal = \$2900

Total For All Backfilling = \$48,400

Grading and Recontouring

A. West Cut

D-8 Dozer: 36 hours at \$120 per hour = \$4300

B. Lehi Cut

D-8 Dozer: 16 hours at \$120 per hour = \$1900

C. North Cut

D-8 Dozer: 8 hours at \$120 per hour = \$1000

Total For Grading and Recontouring = \$7200



Attachment II cont.

Redistribute Topsoil and Prepare Seedbed

A. Spread Topsoil (assume 3 inches over 25 acres = 10,000 yards)

10,000 yards at \$1.80 per yard = \$18,000

B. Rip soil with dozer and multishank ripper

D-8 Dozer: 24 hours at \$120 per hour = \$2900

Total for Topsoiling = \$20,900

Broadcast Seeding

A. Tractor, operator, and laborer

60 hours at \$65 per hour = \$3900

B. Seed and fertilizer for 26 acres

26 acres at \$200 per acre = \$5200

Total for Broadcast Seeding = \$9,100

Summary of Reclamation Costs

<u>Item</u>	<u>Cost</u>
Backfill Pits	\$48,400
Grading and Recontouring	7,200
Topsoiling	20,900
Broadcast Seeding	<u>9,100</u>
Subtotal	\$85,600
Ten Percent Contingency	<u>\$ 8,600</u>
Total in 1988\$	\$94,200
2.3 % inflation added for 5 years (1993\$)	\$105,500
2.3 % inflation added for 25 years (2013\$)	\$166,300

Note: \$105,500 will be required for a five year bonding period  
and \$166,300 for a 25 year bonding period.



Clinton Mine

M/049/006

Acreaged planimetered from May 1987 work map

Prelaw Mining

<u>DESCRIPTION</u>	<u>Approximate Acreage</u>
West Cut	5.1
Clinton Dump	1.7
South Cut	2.3
East Cut	12.0
Misc. Areas South of East Cut	5.9
Waste Dump in Drainage	2.2
Total	<u>29.2</u>

Postlaw Mining

<u>Description</u>	<u>Approximate Acreage</u>
Narrow Cut	2.0
West Pit	1.6
Clay Stockpile (west)	1.6
Clay/Topsoil Stockpile	1.9
Clay Stockpile (central)	.8
North Cut	1.3
Lehi Cut	4.5
Clay Stockpile (east)	2.1
TOTAL	<u>15.8</u>

Projected Mining

<u>Description</u>	<u>Approximate Acreage</u>
North Cut (east)	3.4
North Cut (west)	4.5
Lehi Cut (west)	4.7
South Cut (west)	3.1
TOTAL	<u>15.7</u>